

IN THE CLAIMS

1. (currently amended) A power supply assembly designed to produce a bias voltage that charges a diaphragm located on an electrolytic or electrostatic speaker driven by an audio amplifier, said assembly comprising:

- a) means for converting an input audio signal, derived directly from the audio amplifier, to a direct current,
- b) means for receiving the direct current and producing a regulated direct-current voltage,
- c) means for converting the regulated direct-current voltage to a high voltage alternating-current,
- d) means for converting the high voltage alternating-current to a regulated high voltage direct-current, and
- e) means for limiting the regulated direct-current high voltage prior to being applied as the output bias voltage to the diaphragm.

2. (currently amended) The assembly as specified in claim 1 wherein said means for converting the audio signal to the direct current comprises a rectifier and filter circuit.

3. (canceled)

4. (original) The assembly as specified in claim 1 wherein said means for producing the regulated direct current voltage comprises an adjustable regulator.

5. (canceled)

6. (original) The assembly as specified in claim 1 wherein said means for converting the regulated direct-current voltage to a high voltage alternating-current comprises a dc to ac inverter.

7. (canceled)

8. (currently amended) The assembly as specified in claim 1 wherein said means for converting the high voltage alternating-current to a regulated direct-current high voltage comprises an eight-times multiplier and rectifier circuit that can be adjusted to provide an output from 1.25 KV to 5.6 KV.

9. (canceled)

10. (currently amended) A power supply assembly designed to produce a bias voltage that charges a diaphragm located on an electrolytic or electrostatic speaker driven by an audio amplifier, said assembly comprising:

PG

- a) a rectifier and filter circuit having means for receiving directly from the audio amplifier an input audio signal that is rectified and filtered to produce a direct current,
- b) an adjustable regulator circuit having means for receiving the direct current and producing a regulated direct-current voltage that is set to an optimum level,
- c) a dc to ac inverter circuit having means for receiving and converting the regulated direct-current voltage to a high voltage alternating-current,
- d) an eight-times multiplier and rectifier circuit having means for receiving and converting the high voltage alternating-current to a regulated high voltage direct-current, and
- e) a current limiter circuit having means for receiving and limiting the regulated high voltage direct-current prior to being applied as the output bias voltage to the diaphragm.

11. (canceled)

12. (currently amended) The assembly as specified in claim 11 10 wherein said adjustable regulator circuit means comprises an integrated circuit (U1) connected to a pair of potentiometers (R1) and (R2), wherein the potentiometer (R1) is externally adjustable to set the bias voltage at a preselected value between 3000 and 5000 volts d-c, and potentiometer (R2) is a trimmer adjustment that is factory set to limit the bias voltage to a maximum level.

13. (canceled)

14
14. (canceled)

15. (currently amended) The assembly as specified in claim 10 wherein said dc to ac inverter circuit means comprises an integrated circuit (U2) and capacitor C12, (C4) which function in combination to convert the regulated direct-current voltage to the high voltage alternating-current.

16. (canceled)

17. (currently amended) The assembly as specified in claim 10 wherein said eight-times multiplier and rectifier circuit means comprises a series of diodes (D5-D12) and capacitors (C5-C11) which function in combination to convert the high voltage alternating current to the regulated high voltage direct current.

18. (currently amended) The assembly as specified in claim 10 wherein said current limiter circuit means comprises a resistor ladder network from where the bias voltage is produced that is comprised of current limiting resistors (R4), (R5), (R6) and (R7), wherein resistor (R4) is connected to a reservoir capacitor (C12) to ground and wherefrom resistor (R7) the bias voltage is produced.

19. (canceled)

20. (new) The assembly as specified in claim 1 wherein said means for limiting the regulated direct current high voltage comprises a resistor ladder network from where the bias voltage is produced.